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 NEWS  1          Web Page URLs for STN Seminar Schedule - N. America
 NEWS  2  Sep 17  IMSworld Pharmaceutical Company Directory name change
                  to PHARMASEARCH
 NEWS  3  Oct 09  Korean abstracts now included in Derwent World Patents
                  Index
 NEWS  4  Oct 09  Number of Derwent World Patents Index updates increased
 NEWS  5  Oct 15  Calculated properties now in the REGISTRY/ZREGISTRY File
 NEWS  6  Oct 22  Over 1 million reactions added to CASREACT
 NEWS  7  Oct 22  DGENE GETSIM has been improved
 NEWS  8  Oct 29  AAASD no longer available
 NEWS  9  Nov 19  New Search Capabilities  USPATFULL and USPAT2
 NEWS 10  Nov 19  TOXCENTER(SM) - new toxicology file now available on STN
 NEWS 11  Nov 29  COPPERLIT now available on STN
 NEWS 12  Nov 29  DWPI revisions to NTIS and US Provisional Numbers
 NEWS 13  Nov 30  Files VETU and VETB to have open access
 NEWS 14  Dec 10  WPINDEX/WPIDS/WPIX New and Revised Manual Codes for 2002
 NEWS 15  Dec 10  DGENE BLAST Homology Search
 NEWS 16  Dec 17  WELDASEARCH now available on STN
 NEWS 17  Dec 17  STANDARDS now available on STN
 NEWS 18  Dec 17  New fields for DPCI
 NEWS 19  Dec 19  CAS Roles modified
 NEWS 20  Dec 19  1907-1946 data and page images added to CA and CAplus
 NEWS 21  Jan 25  BLAST(R) searching in REGISTRY available in STN on the Web
 NEWS 22  Jan 25  Searching with the P indicator for Preparations
 NEWS 23  Jan 29  FSTA has been reloaded and moves to weekly updates
 NEWS 24  Feb 01  DKILIT now produced by FIZ Karlsruhe and has a new update
                  frequency

 NEWS EXPRESS  February 1 CURRENT WINDOWS VERSION IS V6.0d,
               CURRENT MACINTOSH VERSION IS V6.0a(ENG) AND V6.0Ja(JP),
               AND CURRENT DISCOVER FILE IS DATED 05 FEBRUARY 2002
 NEWS HOURS    STN Operating Hours Plus Help Desk Availability
 NEWS INTER    General Internet Information
 NEWS LOGIN    Welcome Banner and News Items
 NEWS PHONE    Direct Dial and Telecommunication Network Access to STN
 NEWS WWW      CAS World Wide Web Site (general information)

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FILE 'HOME' ENTERED AT 06:53:50 ON 08 FEB 2002
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COST IN U.S. DOLLARS                                    SINCE FILE      TOTAL
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FILE 'FSTA' ENTERED AT 06:54:01 ON 08 FEB 2002
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FILE 'FROSTI' ENTERED AT 06:54:01 ON 08 FEB 2002
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=> s milk or milk product#
L1      110378 MILK OR MILK PRODUCT#

=> s candida or debaryomyces or saccharomyces or zygosaccharomyces
L2       13077 CANDIDA OR DEBARYOMYCES OR SACCHAROMYCES OR ZYGOSACCHAROMYCES

=> s micrococcus or arthrobacter or corynebacterium
L3        2852 MICROCOCCUS OR ARTHROBACTER OR CORYNEBACTERIUM

=> s l1 and l2
L4         654 L1 AND L2

=> s l1/ti
L5       48454 L1/TI

=> s l5 and l2
L6         212 L5 AND L2

=> s l5 and l2 and l3
L7           6 L5 AND L2 AND L3

=> d 1-6 all

L7   ANSWER 1 OF 6  FSTA  COPYRIGHT 2002 IFIS
AN   2001(12):P1901   FSTA
TI   The surface flora of bacterial smear-ripened cheeses from cow's and goat's
     milk.
AU   Bockelmann, W.; Hoppe-Seyler, T.
CS   Postfach 6069, 24121 Kiel, Germany.  Fax +49-431-6092306.  E-mail
     bockelmann(a)bafm.de
SO   International Dairy Journal, (2001), 11 (4-7) 307-314, 21 ref.
     ISSN: 0958-6946
DT   Journal
LA   English
AB   Microbiological quality of 3 bacterial smear-ripened cheeses (Tilsit
     cheese, Chaumes cheese and a semi-hard goats' cheese) is reported.  Model
     cheese systems were then used to study interactions of the predominant
     strains identified and their effect on microbial growth, and cheese aroma
     compound and pigment production were investigated in order to formulate a
     defined starter culture.  Debaryomyces hansenii was the
     predominant yeast in all stages of ripening in all cheeses.  75-95% of
     bacteria were coryneform bacteria.  Brevibacterium linens was found at
     0-15%.  Yellow-pigmented coryneform isolates (1-30%) were identified as
     Arthrobacter nicotianae.  Non-pathogenic staphylococci (mainly
     Staphylococcus equorum) comprised 5-15% of the total flora.  The
     successful use of a defined 5-strain starter (D. hansenii, B. linens, A.
     nicotianae, Corynebacterium ammoniagenes and S. sciuri) for
     Tilsit cheese ripening was also demonstrated.
CC   P (Milk and Dairy Products)
CT   CHEESE VARIETIES; CHEESEMAKING; MICROBIOLOGICAL QUALITY; STARTERS;
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MODELLING; SMEAR CHEESE

L7 ANSWER 2 OF 6 FSTA COPYRIGHT 2002 IFIS
AN 1985(12):P0084 FSTA
TI Preparation and antibacterial activity of different acidophilus **milk** foods.
AU Gandhi, D. N.; Nambudripad, V. K. N.
CS Nat. Dairy Res. Inst., Karnal 132001, India
SO Indian Journal of Dairy Science, (1980), 33 (4) 484-489, 10 ref.
DT Journal
LA English
AB Acidophilus sour milk (ASM) was prepared using 2% Lactobacillus acidophilus starter (4 strains tested), acidophilus yoghurt (AY) was prepared using 1:1 L. acidophilus R/Streptococcus thermophilus H starter, and acidophilus yeast milk (AYM) was prepared using 2% each of L. acidophilus R and yeast (**Saccharomyces** fragilis R or Sacc. cerevisiae UCD-522). The ASM made with L. acidophilus R contained 1.5% lactic acid, and showed the greatest inhibitory activity against Escherichia coli, Bacillus subtilis, **Micrococcus** flavus and Staphylococcus aureus, optimum temp. for antibacterial activity being 40.degree. C. Unflavoured AY showed inhibitory activity against M. flavus only, whilst AY flavoured with tomato juice inhibited E. coli, M. flavus, Staph. aureus and Salmonella weltevreden. The AYM prepared with Sacc. fragilis had a lower alcohol content than that prepared with Sacc. cerevisiae. Sacc. fragilis did not contribute to the inhibitory activity observed against 4 test organisms. Order of acceptability of the acidophilus products was AY + fruit > AYM > flavoured AY > AY > ASM.
CC P (Milk and Dairy Products)
CT BACTERIA; FERMENTED MILK; INHIBITION; MILK; STARTERS; ACIDOPHILUS MILK; ANTIBACTERIAL ACTIVITY; CULTURED MILKS

L7 ANSWER 3 OF 6 FSTA COPYRIGHT 2002 IFIS
AN 1982(07):H1094 FSTA
TI Quality control in coconut **milk** processing. II. Microbial contaminants.
AU Mabesa, R. C.; Rosario, R. R. del
CS Dep. of Food Sci. & Tech., UP at Los Banos, College, Laguna, Philippines
SO Philippine Agriculturist, (1979), 62 (3) 167-175, 14 ref.
DT Journal
LA English
AB The study was conducted to determine the types of organisms that may be introduced by the raw material, processing equipment and other utensils used in the processing of coconut milk. In addition, the influence of sanitization of the microflora was studied. A large number of bacteria, moulds, yeasts, as well as coliform organisms were present in coconut milk. The use of sanitizing agents resulted in a significant reduction of the types of organisms present in the cream. Some of the persistent bacteria were members of the following genera: Bacillus, Achromobacter, Microbacterium, **Micrococcus**, Brevibacterium and some coliform organism. Among the genera of yeasts and moulds found in the product were Penicillium, **Saccharomyces**, Geotrichum, Mucor and Fusarium. Organisms isolated from the different materials used for processing were usually found in the final product. These findings showed the importance of plant sanitation and personal hygiene in the processing of coconut milk. [See FSTA (1977) 9 12J1945 for part I.]
CC H (Alcoholic and Non-Alcoholic Beverages)
CT BEVERAGES; COCONUTS; CONTAMINATION; MICROORGANISMS; COCONUT MILK; MICROBIAL CONTAMINATION

L7 ANSWER 4 OF 6 FSTA COPYRIGHT 2002 IFIS
AN 1982(01):P0081 FSTA
TI The bacterial content of creamed **milk**.

AU Abo-Elnaga, G.; Metwally, N. H.; El-Mansy, El-M. M.
CS Fac. of Agric., Assiut Univ., Assiut, Egypt
SO Archiv fuer Lebensmittelhygiene, (1981), 32 (1) 19-21, 8 ref.
DT Journal
LA English
SL German
AB Samples of cows' bulk milk were kept for 24 h at 4.degree. and 15.degree. C resp., and the cream layer and partially skimmed milk (PSM) examined bacteriologically. The number of contaminating bacteria in the PSM decreased to 0.4-23% of that in the whole milk. The predominant bacteria in the cream were streptococci, micrococci and Gram-negative bacteria. Streptomyces were present in the raw milk but failed to rise with the fat globules and remained in the PSM. Creaming reduced the numbers of Escherichia coli, Streptococcus lactis, **Saccharomyces** spp., Bacillus subtilis and **Micrococcus** spp. in the PSM to 0.7, 1.0, 2.3, 6.5 and 12.5% resp. when these organisms were added separately to aseptically drawn milk.
CC P (Milk and Dairy Products)
CT BACTERIA; CREAM; FATS MILK; MILK; MILK FATS; SKIM MILK; SKIM-MILK

L7 ANSWER 5 OF 6 FSTA COPYRIGHT 2002 IFIS
AN 1972(01):P0022 FSTA
TI Studies on the microbiology of sweetened condensed **milk**.
AU Rao, V. J.; Ranganathan, B.
CS Nat. Dairy Res. Inst., Karnal, India
SO Indian Journal of Dairy Science, (1970), 23 (4) 205-210, 24 ref.
DT Journal
LA English
AB Cans of sweetened condensed milk made (i) from whole milk (15 samples) or (ii) from skim-milk (19 samples), were incubated at 37.degree.C for 7 days prior to microbiological examination. Total bacterial counts ranged from 50 to 2700/g (average 168/g) in (i) and from 630 to 2.29 million/g (average 54 000/g) in (ii). Yeasts were found in 3 of (i) and 16 of (ii) samples at levels of 5-15 and 5-360/g respectively, the predominant spp. being Trichosporon, **Saccharomyces** and **Candida**. Moulds were found in 10 of (i) and all 19 of (ii) samples at levels of .ltoreq.40 and .ltoreq.100/g respectively and comprised 56% Penicillium, 18.67% Mucor, 14.6% Cladosporium and 10.8% Aspergillus spp. The main bacterial contaminants were **Micrococcus** caseolyticus (22%), Bacillus subtilis (21%) and B. cereus (12%). Studies on samples of sweetened condensed milk held at 22 and 37.degree.C revealed that the microbial count increased gradually during the 1st wk and declined steadily thereafter.
CC P (Milk and Dairy Products)
CT ASPERGILLUS; BACILLUS; BACTERIA; **CANDIDA**; FUNGI; MICROBIOLOGY; MILK; MUCOR; PENICILLIUM; **SACCHAROMYCES**; CASEOLYTICUS; CLADOSPORIUM; CONDENSED MILK; **MICROCOCCUS**; MILK (BACTERIOLOGY); SWEETENED; TRICHOSPORON; ASPERGILLUS ; BACILLUS ; **CANDIDA** ; CLADOSPORIUM ; MICROBIOLOGY ; **MICROCOCCUS** ; MUCOR ; PENICILLIUM ; **SACCHAROMYCES** ; TRICHOSPORON

L7 ANSWER 6 OF 6 FROSTI COPYRIGHT 2002 LFRA
AN 65464 FROSTI
TI The bacterial content of creamed **milk**.
AU Abo-Elnaga I.G.; Metwally N.H.; El-Mansy E.M.M.
SO Archiv fur Lebensmittelhygiene, 1981, 32 (1), 19-21 (8 ref.)
DT Journal
LA English
SL English; German
CT BACILLUS; BACILLUS SUBTILIS; BACTERIA; COW MILK; COWS; CREAM; EGYPTIAN; ESCHERICHIA; ESCHERICHIA COLI; FRESIAN; **MICROCOCCUS**; MICROORGANISMS; MILK; NON FAT; OCCURRENCE; QUANTITY; RAW; RAW MILK;

SACCHAROMYCES; SKIMMED MILK; STREPTOCOCCUS; YEASTS
DED 10 Nov 1981

=> s l1 or dairy
L8 141664 L1 OR DAIRY

=> d his

(FILE 'HOME' ENTERED AT 06:53:50 ON 08 FEB 2002)

FILE 'FSTA, FROSTI' ENTERED AT 06:54:01 ON 08 FEB 2002
L1 110378 S MILK OR MILK PRODUCT#
L2 13077 S CANDIDA OR DEBARYOMYCES OR SACCHAROMYCES OR ZYGOSACCHAROMYCES
L3 2852 S MICROCOCCUS OR ARTHROBACTER OR CORYNEBACTERIUM
L4 654 S L1 AND L2
L5 48454 S L1/TI
L6 212 S L5 AND L2
L7 6 S L5 AND L2 AND L3
L8 141664 S L1 OR DAIRY

=> s l8 and l2 and l3
L9 25 L8 AND L2 AND L3

=> d 1-25 all

L9 ANSWER 1 OF 25 FSTA COPYRIGHT 2002 IFIS
AN 2001(12):P1901 FSTA
TI The surface flora of bacterial smear-ripened cheeses from cow's and goat's **milk**.
AU Bockelmann, W.; Hoppe-Seyler, T.
CS Postfach 6069, 24121 Kiel, Germany. Fax +49-431-6092306. E-mail bockelmann(a)bafm.de
SO International Dairy Journal, (2001), 11 (4-7) 307-314, 21 ref.
ISSN: 0958-6946
DT Journal
LA English
AB Microbiological quality of 3 bacterial smear-ripened cheeses (Tilsit cheese, Chaumes cheese and a semi-hard goats' cheese) is reported. Model cheese systems were then used to study interactions of the predominant strains identified and their effect on microbial growth, and cheese aroma compound and pigment production were investigated in order to formulate a defined starter culture. **Debaryomyces** hansenii was the predominant yeast in all stages of ripening in all cheeses. 75-95% of bacteria were coryneform bacteria. Brevibacterium linens was found at 0-15%. Yellow-pigmented coryneform isolates (1-30%) were identified as **Arthrobacter** nicotianae. Non-pathogenic staphylococci (mainly Staphylococcus equorum) comprised 5-15% of the total flora. The successful use of a defined 5-strain starter (D. hansenii, B. linens, A. nicotianae, **Corynebacterium** ammoniagenes and S. sciuri) for Tilsit cheese ripening was also demonstrated.
CC P (Milk and Dairy Products)
CT CHEESE VARIETIES; CHEESEMAKING; MICROBIOLOGICAL QUALITY; STARTERS; MODELLING; SMEAR CHEESE

L9 ANSWER 2 OF 25 FSTA COPYRIGHT 2002 IFIS
AN 2001(04):P0702 FSTA
TI Quantification and identification of microorganisms from the surface of smear cheeses.
AU Hoppe-Seyler, T.; Jaeger, B.; Bockelmann, W.; Heller, K. J.
CS Inst. of Microbiol., Fed. Dairy Res. Cent., PO Box 60 69, D-24121 Kiel, Germany

SO Kieler Milchwirtschaftliche Forschungsberichte, (2000), 52 (4) 294-305, 21 ref.
ISSN: 0023-1347
DT Journal
LA English
SL French; German
AB Influence of 2 sampling methods and different growth media on cell counts of microorganisms growing on red smear cheese was investigated. Tilsit cheese was smeared with a defined starter (**Debaryomyces** hansenii, Brevibacterium linens, **Arthrobacter** nicotianae, **Corynebacterium** ammoniagenes and Staphylococcus equorum) and sampled by either cutting off thin slices of 30-35 cm.sup.2 with subsequent homogenization in a Stomacher, or by rubbing off 1 cm.sup.2 of surface smear using a cotton wool pad. The 1st (slicing) method gave 50% of the surface cell counts obtained by the 2nd (cotton wool) method. Selectivity was similar for both methods. The 1st method was recommended for quantification, as the larger area analysed provides a more representative picture of the cell counts of the whole cheese. Growth medium also influenced total cell counts of cheese surface bacteria, with **milk** agar (plate count agar + 2% **milk** powder) giving higher cell counts than modified plate count agar (plate count agar + 0.1% **milk** powder, 1% casein hydrolysate, 1% brain heart infusion (BHI)). Plating on modified **milk** agar (**milk** agar +casein hydrolysate + BHI + vitamins) was optimum in terms of revealing different colony types on the basis of pigmentation. Use of biochemical identification kits for classification of smear bacteria, and use of selective growth media for detection of contaminating enterococci, pseudomonads, enterobacteria and fungi are also discussed.
CC P (Milk and Dairy Products)
CT BACTERIA; CHEESE VARIETIES; MICROBIOLOGICAL TECHNIQUES; SAMPLING; SMEAR CHEESE; TILSIT CHEESE

L9 ANSWER 3 OF 25 FSTA COPYRIGHT 2002 IFIS
AN 1998(06):P1000 FSTA
TI Microbiological profile of kulfi.
AU Vibha Kumari; Sherikar, A. A.; Sharmila Majee
CS Dep. of Microbiol., Mumbai Vet. Coll., Parel, Mumbai 400 012, India
SO Indian Journal of Comparative Microbiology, Immunology and Infectious Diseases, (1997), 18 (1) 94-96, 6 ref.
DT Journal
LA English
AB Microbiological quality of 36 samples of kulfi (12 each from roadside and shop vendors, and brand names), collected from various locations across Mumbai, India, was investigated. Amongst all the kulfi samples the following microbial contaminants were identified: Gram-positive microorganisms (Staphylococcus spp., Streptococcus spp., Bacillus spp. and **Micrococcus** luteus); Gram-negative microorganisms (Klebsiella aerogenes, Enterobacter aerogenes, Proteus spp., Escherichia coli and Shigella spp.); fungi (Aspergillus spp., Penicillium spp., Mucor spp., Rhizopus spp., Absidia spp., **Saccharomyces** spp. and Rhodotorula spp.). Results are tabulated and indicate that all products could be improved in terms of their microbiological quality, although products sold at the roadside were of the worst quality. It is suggested that hygienic processing, handling, packaging and sealing of retail kulfi should be regulated, as should the raw materials used in its preparation.
CC P (Milk and Dairy Products)
CT **DAIRY PRODUCTS; FOOD SAFETY DAIRY PRODUCTS;** MICROBIOLOGICAL QUALITY; INDIA; KULFI

L9 ANSWER 4 OF 25 FSTA COPYRIGHT 2002 IFIS
AN 1998(02):P0388 FSTA
TI The microflora of Tilsit cheese. II. Development of a surface smear

starter culture.
AU Bockelmann, W.; Hoppe-Seyler, T.; Krusch, U.; Hoffmann, W.; Heller, K. J.
CS Fed. Dairy Res. Cent., Inst. of Microbiol., Postfach 6069, D-24121 Kiel, Germany
SO Nahrung, (1997), 41 (4) 213-218, 41 ref.
ISSN: 0027-769X
DT Journal
LA English
AB Single strains of bacteria isolated from the surface of commercial Tilsit cheeses were screened for their ability to produce typical Tilsit flavour and colour and for fast growth in **milk**. 3 **milk** based model systems were developed for screening. Shake liquid **milk** cultures were suitable to determine production of colour and volatile flavour compounds. **Milk** agar plates were used to study synergistic and antagonistic effects between isolates. With mini cheeses in centrifuge bottles, cheese conditions were stimulated under sterile conditions. Volatile aroma production and pigmentation of the surface flora were studied with this system. Additional growth studies in other growth media with various combinations of strains revealed some of the possible roles of surface bacteria. Brevibacterium linens promoted growth of yellow coryneform bacteria. A pigmented **Arthrobacter** strain was responsible for the production of a yellow coloured water soluble pigment, a precursor for the typical red-brown colour of Tilsit cheese. In mixed culture with pigmented or non-pigmented strains of B. linens, the yellow colour turned into red-brown. A proteolytic Staphylococcus strain seemed to be important for the initiation of surface starter growth. Staphylococci showed fast growth at pH 5.5 and below. They also promoted growth of the yellow **Arthrobacter** strain. Based on these results, a defined surface starter was developed consisting of 5 strains. The yeast **Debaryomyces** hansenii was used for deacidification of the cheese rind. A combination of a non-pigmented, proteolytic B. linens, a yellow **Arthrobacter** strain, a cream-coloured coryneform bacterium, and a proteolytic Staphylococcus sciuri were used for cheese ripening. Experimental cheeses were produced on a 10 kg scale. The defined starter grew fast on the cheese surfaces, and produced the typical flavour and colour of Tilsit cheese. [See also 1998-Pj211.]
CC P (Milk and Dairy Products)
CT CHEESE VARIETIES; RIPENING; STARTERS; TILSIT CHEESE

L9 ANSWER 5 OF 25 FSTA COPYRIGHT 2002 IFIS
AN 1998(02):P0211 FSTA
TI The microflora of Tilsit cheese. I. Variability of the smear flora.
AU Bockelmann, W.; Krusch, U.; Engel, .G; Klijn, N.; Smit, G.; Heller, K. J.
CS Fed. Dairy Res. Cent., Inst. of Microbiol., Postfach 6069, D-24121 Kiel, Germany
SO Nahrung, (1997), 41 (4) 208-212, 30 ref.
ISSN: 0027-769X
DT Journal
LA English
AB The microflora of 25 Tilsit cheeses from 2 cheese plants was analysed. **Debaryomyces** hansenii was found to be the predominant yeast in all stages of ripening. 75-95% of the bacterial flora consisted of coryneform bacteria. Several of the isolates were identified as **Arthrobacter** . Brevibacterium linens was found at 0-15%. In all cheeses tested, 5-15% of total cell counts were made up by staphylococci. They were determined as not being Staphylococcus aureus or other pathogenic staphylococci since all isolates were negative with respect to thermonuclease, clumping, coagulase, and haemagglutination. Most of the isolates were haemolysis negative. By genetical analysis, several selected isolates were classified as Staphylococcus equorum, one isolate as S. sciuri. Contamination of cheeses with Fusarium indicated the influence of the smearing strategy on spreading of undesirable microorganisms. In plant A,

old cheeses were smeared first, then young cheeses were smeared with the same smear liquid. Fusarium contamination could be detected in all stages of ripening. In plant B, young cheeses (0-3 wk) were smeared with a commercial surface starter cocktail. In all cheeses of this age, problems with Penicillium-contaminations were observed. Older cheeses (>3 wk) were smeared according to the strategy applied in plant A. Consequently Fusarium were detected in cheeses of 4-8 wk of age.
CC P (Milk and Dairy Products)
CT CHEESE VARIETIES; **FOOD SAFETY DAIRY PRODUCTS**; MICROORGANISMS; TILSIT CHEESE

L9 ANSWER 6 OF 25 FSTA COPYRIGHT 2002 IFIS
AN 1997(11):P0111 FSTA
TI Identification of yeasts and coryneform bacteria from the surface microflora of brick cheeses.
AU Valdes-Stauber, N.; Scherer, S.; Seiler, H.
CS Correspondence (Reprint) address, H. Seiler, Dairy & Food Res. Cent. Weihenstephan, Inst. of Microbiol., Tech. Univ. Muenchen, D-85354 Freising, Germany. Tel. +49 8161 713519. Fax +49 8161 714492
SO International Journal of Food Microbiology, (1997), 34 (2) 115-129, 35 ref.
ISSN: 0168-1605
DT Journal
LA English
AB Coryneform bacteria and yeasts of 21 brick cheeses [including Limburger, Romadur, Weinkaese and Harzer] from 6 German dairies, produced by using undefined ripening cultures, were identified. **Arthrobacter** nicotianae, Brevibacterium linens, **Corynebacterium** ammoniagenes, **Corynebacterium** variabilis and Rhodococcus fascians were found in significant numbers. Out of 148 coryneform isolates, 36 could not be identified at the species level. With the exception of a large rennet cheese, the coryneform microflora of rennet and acid cured cheeses was similar, but the cheese had clearly different yeast populations. **Debaryomyces** hansenii and Galactomyces geotrichum prevailed in rennet cheeses while Kluyveromyces marxianus and Pichia membranaefaciens were the main species found in acid cured cheese. The dominance of Yarrowia lipolytica probably indicates an improper yeast population, resulting in poor cheese quality. Some of the species identified are potential candidates for designing a defined ripening culture for rennet red smear cheese.
CC P (Milk and Dairy Products)
CT BACTERIA; CHEESE; **DAIRY PRODUCTS**; FOOD SAFETY; **FOOD SAFETY DAIRY PRODUCTS**; MICROORGANISMS; YEASTS; GERMANY

L9 ANSWER 7 OF 25 FSTA COPYRIGHT 2002 IFIS
AN 1996(01):A0032 FSTA
TI Principles of separating micro-organisms from suspensions using ultrasound.
AU Miles, C. A.; Morley, M. J.; Hudson, W. R.; Mackey, B. M.
CS Muscle & Collagen Res. Group, Dep. of Clinical Vet. Sci., Univ. of Bristol, Bristol BS18 7DY, UK
SO Journal of Applied Bacteriology, (1995), 78 (1) 47-54, 14 ref.
ISSN: 0021-8847
DT Journal
LA English
AB Threshold amplitudes required to band latex spheres of bacterial cell size 0.5-5 .mu.m diam. in a stationary ultrasonic field were measured in the frequency range 1-3 MHz. Results were used to establish conditions suitable for the separation of vegetative microbial cells from suspensions of full cream **milk** in distilled water. Microorganisms examined were **Saccharomyces** cerevisiae, Bacillus megaterium, Listeria innocua, Lactococcus lactis, Escherichia coli and **Micrococcus**

luteus. Use of ultrasonic methods to separate E. coli suspended in a solution of **milk** was investigated. A method was developed that was capable of separating and concentrating cream and bacteria at opposite ends of a test tube. Results suggest that ultrasonic techniques may be developed to separate bacteria from food and to concentrate them. Theoretical equations for banding thresholds of particles of low size are discussed.

CC A (Food Sciences)

CT BACTERIA; **DAIRY PRODUCTS**; ESCHERICHIA; **FOOD SAFETY DAIRY PRODUCTS**; MICROORGANISMS; **MILK**; PROCESSING; SEPARATION; ULTRASOUND

L9 ANSWER 8 OF 25 FSTA COPYRIGHT 2002 IFIS

AN 1994(10):A0062 FSTA

TI Inorganic pyrophosphatase-based detection systems. II. Detection and quantification of cell lysis and cell-lysing activity.

AU Nyren, P.; Edwin, V.

CS Dep. of Biochem. & Biotech., Royal Inst. of Tech., S-100 44 Stockholm, Sweden

SO Analytical Biochemistry, (1994), 220 (1) 46-52, 21 ref.
ISSN: 0003-2697

DT Journal

LA English

AB A technique to detect and quantify cell lysis and cell-lysing activity is described. The method is based on a sensitive enzymic luminometric inorganic pyrophosphate detection assay (ELIDA), which measures the levels present of inorganic pyrophosphatase, an enzyme constitutively expressed in all cells. The fraction of lysed cells in a sample could be determined by assessing activity in the absence and presence of total lysing activity. This method was used to determine the effect of storage on lysis of **Micrococcus** luteus and **Saccharomyces** cerevisiae, and also to detect the lytic compounds Triton X100 (a surfactant) and lysozyme via their lytic activity towards M. luteus. Sensitivity of the assay was dependent on a variety of factors, including the amount of cells used, incubation time, and incubation temp. It is suggested that this assay could be suitable for large scale analysis of lytic behaviour, and a wide variety of possible applications are discussed. Applications suggested for the food and **dairy** industry include: viable cell determination in brewing and winemaking; and detection of lysozyme in foods. [See preceding abstr. for part I.]

CC A (Food Sciences)

CT ANALYTICAL TECHNIQUES; ENZYMES; FOOD SAFETY; HYDROLASES; MICROORGANISMS; FOODS; PYROPHOSPHATASES

L9 ANSWER 9 OF 25 FSTA COPYRIGHT 2002 IFIS

AN 1993(09):P0104 FSTA

TI Microflora present in kefir grains of the Galician region (North-West of Spain).

AU Angulo, L.; Lopez, E.; Lema, C.

CS Microbiol., Fac. de Ciencias, Univ. de Vigo, Apartado 874, 36200 Vigo, Spain

SO Journal of Dairy Research, (1993), 60 (2) 263-267, 10 ref.
ISSN: 0022-0299

DT Journal

LA English

AB Microflora present in kefir grains (a symbiotic association of yeasts and lactic acid bacteria embedded in a polysaccharide matrix (kefiran)) used in the fermentation of **milk** was investigated. 8 kefir grains were obtained from different dairies in Galicia, Spain; grains were propagated by twice- or thrice-weekly transfer into pasteurized cows' **milk**. From the interior of kefir grains, 49 yeast strains corresponding to 5 genera were isolated; Torulaspora delbrueckii and

Saccharomyces cerevisiae were 13.3 and 10.6%, respectively, of the total yeast spp. isolated. 46 strains of lactic acid bacteria representing 4 genera were isolated; 9 homofermentative (25.7%) and heterofermentative (74.3%) lactobacilli spp. were identified. Lactococcus lactis subsp. lactis (6.2%) was isolated from most kefir grains. Also, 18 bacterial strains, considered to be contaminating, representing 5 genera were isolated, including spp. of the Pediococcus, **Micrococcus**, Bacillus and Acetobacter genera.

CC P (Milk and Dairy Products)

CT **FERMENTED DAIRY PRODUCTS**; **FERMENTED MILK**; GRAIN; MICROORGANISMS; KEFIR; MICROFLORA

L9 ANSWER 10 OF 25 FSTA COPYRIGHT 2002 IFIS

AN 1993(02):P0055 FSTA

TI Scanning electron and light microscopic study of microbial succession on Bethlehem St. Nectaire cheese.

AU Marcellino, N.; Benson, D. R.

CS Correspondence (Reprint) address, D. R. Benson, Dep. of Molecular & Cell Biol., U-44, Univ. of Connecticut, Storrs, CT 06269-3044, USA

SO Applied and Environmental Microbiology, (1992), 58 (11) 3448-3454, 19 ref. ISSN: 0099-2240

DT Journal

LA English

AB St. Nectaire cheese is a semisoft cheese of French origin that, along with Brie and Camembert cheeses, belongs to the class of surface ripened cheese. Surface microorganisms on the cheese rind during ripening impart a distinctive aroma and flavour to this class of cheese. The sequential appearance of microorganisms on the cheese rind and in the curd was followed over a 60-day ripening period. SEM was used to visualize the development of surface fungi and bacteria. Light microscopy of stained paraffin sections was used to study cross sections through the rind. pH and development of bacterial and yeast populations in the curd and rind were also monitored. The earliest stage of ripening (0-2 days) was dominated by the lactic acid bacterium Streptococcus cremoris and multilateral budding yeasts, primarily **Debaryomyces** and Torulopsis species. Geotrichum candidum followed closely, and then zygomycetes of the genus Mucor developed at day 4 of ripening. At day 20, the deuteromycete Trichothecium roseum appeared. From day 20 until the end of the ripening process, coryneforms of the genera Brevibacterium and **Arthrobacter** were seen near the surface of the cheese rind among fungal hyphae and yeast cells.

CC P (Milk and Dairy Products)

CT CHEESE; CHEESE VARIETIES; **DAIRY PRODUCTS**; MICROBIOLOGICAL QUALITY; RIPENING

L9 ANSWER 11 OF 25 FSTA COPYRIGHT 2002 IFIS

AN 1991(04):V0131 FSTA

TI [Process for preparation of Tilsit and Tilsit-style cheese.] Verfahren zur Herstellung von Tilsiter und Kaese nach Tilsiterart.

IN Schmidt, H.; Philipp, S.

PA Grace GmbH; Grace GmbH, D-2000 Norderstedt, FRG

SO German Federal Republic Patent Application, (1990)

PI DE 3905499 A1

PRAI DE @@@@-3905499 19890220

DT Patent

LA German

AB A process for manufacture of Tilsit or Tilsit-type cheese is described, in which starters (Lactobacillus helveticus, L. delbrueckii, Brevibacterium linens, B. casei, **Arthrobacter** spp., Geotrichum candidum or **Debaryomyces** hansenii) or combinations of these microorganisms are added to the cheese **milk**. The cheeses are packaged under mild vacuum in film of defined permeability, for optimization of maturation.

CC V (Patents)
CT CHEESE VARIETIES; CHEESEMAKING; **DAIRY PRODUCTS**; MICROORGANISMS; PATENTS; STARTERS; CHEESES SPECIFIC; TILSIT CHEESE

L9 ANSWER 12 OF 25 FSTA COPYRIGHT 2002 IFIS
AN 1985(12):P0084 FSTA
TI Preparation and antibacterial activity of different acidophilus **milk** foods.
AU Gandhi, D. N.; Nambudripad, V. K. N.
CS Nat. Dairy Res. Inst., Karnal 132001, India
SO Indian Journal of Dairy Science, (1980), 33 (4) 484-489, 10 ref.
DT Journal
LA English
AB Acidophilus sour **milk** (ASM) was prepared using 2% Lactobacillus acidophilus starter (4 strains tested), acidophilus yoghurt (AY) was prepared using 1:1 L. acidophilus R/Streptococcus thermophilus H starter, and acidophilus yeast **milk** (AYM) was prepared using 2% each of L. acidophilus R and yeast (**Saccharomyces** fragilis R or Sacc. cerevisiae UCD-522). The ASM made with L. acidophilus R contained 1.5% lactic acid, and showed the greatest inhibitory activity against Escherichia coli, Bacillus subtilis, **Micrococcus** flavus and Staphylococcus aureus, optimum temp. for antibacterial activity being 40.degree. C. Unflavoured AY showed inhibitory activity against M. flavus only, whilst AY flavoured with tomato juice inhibited E. coli, M. flavus, Staph. aureus and Salmonella weltevreden. The AYM prepared with Sacc. fragilis had a lower alcohol content than that prepared with Sacc. cerevisiae. Sacc. fragilis did not contribute to the inhibitory activity observed against 4 test organisms. Order of acceptability of the acidophilus products was AY + fruit > AYM > flavoured AY > AY > ASM.
CC P (Milk and Dairy Products)
CT BACTERIA; **FERMENTED MILK**; INHIBITION; **MILK**; STARTERS; **ACIDOPHILUS MILK**; ANTIBACTERIAL ACTIVITY; CULTURED MILKS

L9 ANSWER 13 OF 25 FSTA COPYRIGHT 2002 IFIS
AN 1982(07):H1094 FSTA
TI Quality control in coconut **milk** processing. II. Microbial contaminants.
AU Mabesa, R. C.; Rosario, R. R. del
CS Dep. of Food Sci. & Tech., UP at Los Banos, College, Laguna, Philippines
SO Philippine Agriculturist, (1979), 62 (3) 167-175, 14 ref.
DT Journal
LA English
AB The study was conducted to determine the types of organisms that may be introduced by the raw material, processing equipment and other utensils used in the processing of coconut **milk**. In addition, the influence of sanitization of the microflora was studied. A large number of bacteria, moulds, yeasts, as well as coliform organisms were present in coconut **milk**. The use of sanitizing agents resulted in a significant reduction of the types of organisms present in the cream. Some of the persistent bacteria were members of the following genera: Bacillus, Achromobacter, Microbacterium, **Micrococcus**, Brevibacterium and some coliform organism. Among the genera of yeasts and moulds found in the product were Penicillium, **Saccharomyces**, Geotrichum, Mucor and Fusarium. Organisms isolated from the different materials used for processing were usually found in the final product. These findings showed the importance of plant sanitation and personal hygiene in the processing of coconut **milk**. [See FSTA (1977) 9 12J1945 for part I.]
CC H (Alcoholic and Non-Alcoholic Beverages)
CT BEVERAGES; COCONUTS; CONTAMINATION; MICROORGANISMS; **COCONUT MILK**; MICROBIAL CONTAMINATION

L9 ANSWER 14 OF 25 FSTA COPYRIGHT 2002 IFIS

AN 1982(01):P0081 FSTA
TI The bacterial content of creamed **milk**.
AU Abo-Elnaga, G.; Metwally, N. H.; El-Mansy, El-M. M.
CS Fac. of Agric., Assiut Univ., Assiut, Egypt
SO Archiv fuer Lebensmittelhygiene, (1981), 32 (1) 19-21, 8 ref.
DT Journal
LA English
SL German
AB Samples of cows' bulk **milk** were kept for 24 h at 4.degree. and 15.degree. C resp., and the cream layer and partially skimmed **milk** (PSM) examined bacteriologically. The number of contaminating bacteria in the PSM decreased to 0.4-23% of that in the whole **milk**. The predominant bacteria in the cream were streptococci, micrococci and Gram-negative bacteria. Streptomyces were present in the raw **milk** but failed to rise with the fat globules and remained in the PSM. Creaming reduced the numbers of Escherichia coli, Streptococcus lactis, **Saccharomyces** spp., Bacillus subtilis and **Micrococcus** spp. in the PSM to 0.7, 1.0, 2.3, 6.5 and 12.5% resp. when these organisms were added separately to aseptically drawn **milk**.
CC P (Milk and Dairy Products)
CT BACTERIA; CREAM; **FATS MILK**; **MILK**; **MILK FATS**; **SKIM MILK**; **SKIM-MILK**

L9 ANSWER 15 OF 25 FSTA COPYRIGHT 2002 IFIS
AN 1973(01):P0072 FSTA
TI Microbiological and chemical studies on zabady.
AU El-Sadek, M. G.; Naguib, Kh.; Negm, A.
CS Dept. of Food Sci., Fac. of Agric., Ein-Shams Univ., Cairo, United Arab Republic
SO Milchwissenschaft, (1972), 27 (9) 570-572, 29 ref.
DT Journal
LA English
SL German
AB 50 random samples of zabady from Cairo market had an average titratable acidity of 1.01% (0.6-1.54%) and pH of 3.7 (3-4.4). Average composition was 3.62% (1.05-6.8%) fat, 4.17% (3.11-5.6%) total protein, 14.32% (10.64-18.57%) TS, 2.92% (1.2-4.8%) lactose and 0.65% (0.39-1.37%) ash. Total microbial counts on tryptone/yeast extract/glucose/lactose agar averaged 1182 million/ml, the predominant species being streptococci (mainly Streptoccoccus thermophilus) followed by micrococci and microbacteria. Lactobacillus counts on Rogosa medium averaged 696 million/ml with Lactobacillus bulgaricus predominating. Yeast + mould counts on malt extract agar averaged 688 000/ml and were mainly **Candida** spp.; yeasts were detected in 84% of samples. Coliform counts by the MPN technique ranged from 0 to 2.4 million/ml with an average of 152 000/ml, these organisms being detected in 58% of samples.
CC P (Milk and Dairy Products)
CT ACIDITY; BACTERIA; **CANDIDA**; COLIFORMS; **FERMENTED MILK**; FUNGI; LACTOBACILLUS; LACTOSE; MICROORGANISMS; MINERALS; PH; SOLIDS; STREPTOCOCCUS; YEASTS; ASH; CORYNEBACTERICEAE; CULTURED MILKS; FAT; LACTOBACILLI; MICROBACTERIA; MICROBIAL COUNT; MICROCOCCI; **MICROCOCCUS**; **MILK (FATS)**; **MILK (PROTEINS)**; MOULDS; PROTEIN; STREPTOCOCCI; TS; ZABADY

L9 ANSWER 16 OF 25 FSTA COPYRIGHT 2002 IFIS
AN 1972(10):P1500 FSTA
TI [Chemical and microbiological study of ripening of Gorgonzola cheese.]
AU Ottogalli, G.; Resmini, P.; Bianchi, B.; Galli, A.; Rondinini, G.; Salvadori, P.; Saracchi, S.; Volonterio, G.
CS Istituto di Microbiologia Agraria, Univ., Milan, Italy
SO Latte, (1971), 45 (11) 776-789, 36 ref.
DT Journal

LA Italian
SL English
AB Gorgonzola cheese was made by the normal method from **milk** pasteurized at 72.degree.C for 15-20 sec, using Streptococcus thermophilus + Lactobacillus bulgaricus starter and inoculation with Penicillium roqueforti var. weidemannii. The cheese was examined before and after the salting at 20-25.degree.C, and at various times during ripening at 5.degree.C. The chemical results demonstrate a marked increase in free amino acids, NH.sub.3 and methyl ketones after the 45th day of the 2 months ripening. The bacteriological results demonstrate the development of lactic acid bacteria in the **milk**, thermophilic bacteria in the curd during draining and salting in the warm room, and mesophilic lactic acid bacteria during ripening, following by the development of the Penicillium following inoculation. The rind contains **Candida** and Torula yeasts as well as yellowish micrococci and reddish **Arthrobacter**.
CC P (Milk and Dairy Products)
CT AMINO ACIDS; AMMONIA; BACTERIA; **CANDIDA**; CHEESE; CHEESE VARIETIES; KETONES; MICROORGANISMS; PENICILLIUM; RIPENING; YEASTS; **ARTHROBACTER**; CORYNEBACTERIACEAE; GORGONZOLA; GORGONZOLA CHEESE; LACTIC ACID BACTERIA; LACTOBACILLACEAE; MESOPHILES; METHYL; NH3; TORULA; AMINO ACIDS ; **CANDIDA** ; CHEESE ; KETONES ; PENICILLIUM ; RIPENING

L9 ANSWER 17 OF 25 FSTA COPYRIGHT 2002 IFIS
AN 1972(01):P0022 FSTA
TI Studies on the microbiology of sweetened condensed **milk**.
AU Rao, V. J.; Ranganathan, B.
CS Nat. Dairy Res. Inst., Karnal, India
SO Indian Journal of Dairy Science, (1970), 23 (4) 205-210, 24 ref.
DT Journal
LA English
AB Cans of sweetened condensed **milk** made (i) from whole **milk** (15 samples) or (ii) from skim-**milk** (19 samples), were incubated at 37.degree.C for 7 days prior to microbiological examination. Total bacterial counts ranged from 50 to 2700/g (average 168/g) in (i) and from 630 to 2.29 million/g (average 54 000/g) in (ii). Yeasts were found in 3 of (i) and 16 of (ii) samples at levels of 5-15 and 5-360/g respectively, the predominant spp. being Trichosporon, **Saccharomyces** and **Candida**. Moulds were found in 10 of (i) and all 19 of (ii) samples at levels of .ltoreq.40 and .ltoreq.100/g respectively and comprised 56% Penicillium, 18.67% Mucor, 14.6% Cladosporium and 10.8% Aspergillus spp. The main bacterial contaminants were **Micrococcus** caseolyticus (22%), Bacillus subtilis (21%) and B. cereus (12%). Studies on samples of sweetened condensed **milk** held at 22 and 37.degree.C revealed that the microbial count increased gradually during the 1st wk and declined steadily thereafter.
CC P (Milk and Dairy Products)
CT ASPERGILLUS; BACILLUS; BACTERIA; **CANDIDA**; FUNGI; MICROBIOLOGY; **MILK**; MUCOR; PENICILLIUM; **SACCHAROMYCES**; CASEOLYTICUS; CLADOSPORIUM; **CONDENSED MILK**; **MICROCOCCUS**; **MILK (BACTERIOLOGY)**; SWEETENED; TRICHOSPORON; ASPERGILLUS ; BACILLUS ; **CANDIDA** ; CLADOSPORIUM ; MICROBIOLOGY ; **MICROCOCCUS** ; MUCOR ; PENICILLIUM ; **SACCHAROMYCES** ; TRICHOSPORON

L9 ANSWER 18 OF 25 FSTA COPYRIGHT 2002 IFIS
AN 1970(07):P0855 FSTA
TI [Study of microbial flora in cheese of Saint-Paulin type. III. Its proteolytic activity.]
AU Ducastelle, A.; Lenoir, J.
CS Lab. de Technologie, Ecole Nat. Superieure Agronomique, Grignon (78), France

SO Lait, (1969), 49 (489/490) 615-36, 18 ref.
DT Journal
LA French
SL English
AB Intracellular proteases were obtained from 4 strains of Streptococcus lactis, 2 of Str. diacetilactis, 3 of Lactobacillus plantarum, 9 of micrococci, 2 of **Saccharomyces** and 1 of **Candida**, all isolated from Saint-Paulin cheeses during ripening. Optimum pH and temp. respectively, for activity of these enzymes on casein substrate were 6.3 and 45.degree. for streptococci, 5.5 and 45.degree.C for lactobacilli, 7.5 and 45.degree.C for micrococci, 6.3 and 55.degree.C for **Candida**, and 7.5 and 55.degree.C for **Saccharomyces**. Extracellular protease acitivty, with an optimum at pH 7.2 and 45.degree.C was observed in a micrococcal strain, but not in the streptococci or lactobacilli. Extracellular protease systems of the 2 yeasts appeared to be identical to the intracellular systems. It is concluded that protein degradation in Saint-Paulin cheese is brought about mainly by the intracellular proteases of lactic streptococci. [See Lait (1965) 45 (448) 509-18 for part II.]
CC P (Milk and Dairy Products)
CT BACTERIA; **CANDIDA**; CHEESE; CHEESE VARIETIES; DECOMPOSITION; LACTOBACILLUS; PH; PROTEINASES; PROTEINS; **PROTEINS MILK**; **SACCHAROMYCES**; STREPTOCOCCUS; TEMPERATURE; DEGRADATION; MICROBIAL; MICROCOCCI; **MICROCOCCUS**; **MILK PROTEINS**; PLANTARUM; PROTEASE; PROTEASES; SAINT-PAULIN CHEESE

L9 ANSWER 19 OF 25 FROSTI COPYRIGHT 2002 LFRA
AN 566834 FROSTI
TI The growth, properties and interactions of yeasts and bacteria associated with the maturation of Camembert and blue-veined cheeses.
AU Addis E.; Fleet G.H.; Cox J.M.; Kolak D.; Leung T.
SO International Journal of Food Microbiology, 2001, (September 19), 69 (1-2), 25-36 (32 ref.)
Published by: Elsevier Science Address: PO Box 211, 1000 AE Amsterdam, The Netherlands Telephone: +31 (20) 485 3757 Fax: +31 (20) 485 3432 Email: nlinfo-f@elsevier.nl Web: www.elsevier.nl/locate/ijfoodmicro
ISSN: 0168-1605
DT Journal
LA English
SL English
AB The production of mould-ripened cheeses, such as Camembert and blue-veined varieties, involves a maturation step that is characterized by the growth of a complex ecology of yeasts, bacteria, and fungi. Their interactions determine the final cheese quality and sensory properties. The growth profiles of species of yeasts and bacteria throughout the production of Camembert and blue-veined cheeses at several commercial producers in Australia were studied. Yeasts were prominent through maturation, growing to 100,000-1,000,000,000 per gram, with **Debaryomyces** hansenii predominating. Acinetobacter species were significant during the maturation of Camembert cheese, and grew to 1,000,000-100,000,000 cfu per gram, while fewer numbers of Staphylococcus and **Micrococcus** were also detected. Between 10,000,000 and 1,000,000,000 cfu per gram of unidentified lactic acid bacteria were present during maturation. Several of the strains of D. hansenii showed killer activity, but not against Yarrowia lipolytica. None of the yeasts were antagonistic against the endogenous bacteria, but some strains of D. hansenii enhanced the growth of Y. lipolytica and **Saccharomyces** xylosus. The production of proteinases, lipases, and the changes in curd pH and salt content during maturation, and their potential industrial applications are also discussed.
SH **DAIRY** PRODUCTS
CT BLUE CHEESE; CAMEMBERT CHEESE; CHEESE; **DAIRY** PRODUCTS; **DEBARYOMYCES**; **DEBARYOMYCES** HANSENII; GROWTH; KILLER

YEASTS; LIPOLYTIC ENZYMES; MICROORGANISMS; OCCURRENCE; PRODUCTION; PROTEOLYTIC ENZYMES; TYPES; YEASTS
DED 30 Oct 2001

L9 ANSWER 20 OF 25 FROSTI COPYRIGHT 2002 LFRA
AN 562312 FROSTI
TI Study and prevention of Italian Stracchino cheese spoilage.
AU Comi G.; Collovati S.; Croattini I.; Surmelj A.; Cocolin L.
SO Industrie Alimentari, 2001, (July-August), 40 (405), 729-737 (7 ref.)
Published by: Chiriotti Editori spa Address: PO Box 66, Viale Rimembranza 60, 10064 Pinerolo, Italy Telephone: +39 (121) 393127 Fax: +39 (121) 794480 Email: info@chiriottieditori.it Web: www.chiriottieditori.it
ISSN: 0019-901X
DT Journal
LA Italian
SL English; Italian
AB Stracchino is an Italian soft cheese that is sometimes affected by surface discoloration associated with microbial spoilage. This paper reports on an investigation of the growth of spoilage microorganisms during Stracchino cheese production. The most widely observed species were **Candida** intermedia, **Arthrobacter** spp, Brevibacterium spp, and Sarcina spp. Microbial growth occurred on the surface of cheeses during the short ripening period. These microorganisms were derived from air, cheesemaking equipment, and drying rooms in the cheese factory. Improved hygiene reduced the incidence of spoilage.
SH CONTAMINATION
CT CHEESE; CHEESEMAKING; **DAIRY** PRODUCTS; DETERIORATION; GROWTH; HYGIENE; ITALIAN CHEESE; PRODUCTION; RIPENING; SOFT CHEESE; SPOILAGE; SPOILAGE MICROORGANISMS; STRACCHINO CHEESE
DED 11 Sep 2001

L9 ANSWER 21 OF 25 FROSTI COPYRIGHT 2002 LFRA
AN 446696 FROSTI
TI The microflora of Tilsit cheese. Part 2. Development of a surface smear starter culture.
AU Bockelmann W.; Toppe-Seyler T.; Krusch U.; Hoffmann W.; Heller K.J.
SO Nahrung, 1997, (August), 41 (4), 213-218 (41 ref.)
DT Journal
LA English
SL English
AB Single strains of bacteria were isolated from the surface of Tilsit cheeses and screened for their ability to produce Tilsit flavour and colour. Three model systems were used for screening: liquid **milk** cultures, agar plate cultures, and mini cheeses. Using these results, a defined surface starter was developed. It consisted of a yeast (**Debaryomyces** hansenii), two strains of coryneform bacteria (**Arthrobacter**), and Brevibacterium linens and Staphylococcus sciuri. Using this surface starter, it was possible to produce cheeses with a typical Tilsit flavour and colour.
SH **DAIRY** PRODUCTS
CT BACTERIA; CHEESE; MICROBIOLOGY; SURFACE CULTURES; TILSIT CHEESE; YEAST
DED 21 Oct 1997

L9 ANSWER 22 OF 25 FROSTI COPYRIGHT 2002 LFRA
AN 446695 FROSTI
TI The microflora of Tilsit cheese. Part 1. Variability of the smear flora.
AU Bockelmann W.; Krusch U.; Engel G.; Klijn N.; Smit G.; Heller K.J.
SO Nahrung, 1997, (August), 41 (4), 208-212 (30 ref.)
DT Journal
LA English

SL English
AB The microflora of 25 Tilsit cheeses from two factories was analysed. In all cheeses, **Debaryomyces** hansenii was the predominant yeast in the first days of ripening. In both cheese plants, Fusarium moulds were important fungal contaminants. Penicillium commune was also present in some cheeses as a contaminant. Of the total bacterial cell counts, 75-95% consisted of smear bacteria (Brevibacterium linens, **Arthrobacter**, and other coryneform bacteria); 5-25% consisted of staphylococci. Low-salt cheeses had elevated Staphylococcus levels. Bacterial contaminants (pseudomonads, coliform bacteria) were found in all cheeses. Smearing of young cheeses with recycled smear liquid was a source of contamination.
SH **DAIRY** PRODUCTS
CT BACTERIA; CHEESE; CONTAMINATION; MICROBIOLOGY; TILSIT CHEESE; YEAST
DED 21 Oct 1997

L9 ANSWER 23 OF 25 FROSTI COPYRIGHT 2002 LFRA
AN 310307 FROSTI
TI Starter cultures.
AU Mogensen G.
SO Technology of reduced-additive foods., Published by: Blackie Publishers, Glasgow, 1993, 1-25 (many ref.)
Smith J.
ISBN: 0-7514-0002-5
DT Book Article
LA English
AB The author discusses developments in starter technology and reviews ways in which starter cultures are used to replace traditional additives in foods such as **dairy** products, meat products and bread.
Reference is made to the preservative effect of lactic acid bacteria, resulting from the production of antimicrobial agents such as lactic acid, acetic acid, propionic acid, diacetyl, carbon dioxide and bacteriocins. Consideration is given to the effect of starter cultures on the viscosity and texture of fermented **milk products**;
the role of proteolytic enzymes from starter cultures in cheese manufacture; the use of Lactobacillus, Pediococcus, Staphylococcus, **Micrococcus**, Streptococcus, **Debaryomyces** and
Penicillium as starter cultures for meat products; the role of microbial amylases and proteases in bread production; and the genetic stability of lactic acid bacteria.
SH PROCESSING
CT ADDITIVES; ANTIMICROBIALS; APPLICATIONS; BACTERIA; BACTERIAL ANTIMICROBIALS; BIOTECHNOLOGY; BREAD; **DAIRY** PRODUCTS; **DAIRY** SUBSTITUTES; FERMENTED; FERMENTED **DAIRY** PRODUCTS; FERMENTED MEAT PRODUCTS; LACTIC ACID; LACTIC ACID BACTERIA; MEAT PRODUCTS; MEAT SUBSTITUTES; PRESERVATION; PRESERVATIVES; PRODUCTION; STARTER BACTERIA; STARTERS; SUBSTITUTES; TYPE
DED 13 May 1993

L9 ANSWER 24 OF 25 FROSTI COPYRIGHT 2002 LFRA
AN 304114 FROSTI
TI Health aspects of 'bifidus' products: a review.
AU Robinson R.K.; Samona A.
SO International Journal of Food Sciences and Nutrition, 1992, 43 (3), 175-180 (48 ref.)
DT Journal
LA English
AB There is good evidence for the potential health-promoting role of fermented **dairy** products containing Lactobacillus acidophilus and Bifidobacterium species. The reasons for the effectiveness of 'bifidus' products are reviewed. The defence reactions of the body to the presence of bifidobacteria, including immunological stimulation, are

discussed. In addition, ingestion of the organisms may result in the production of L-lactic acid and acetic acid, which may suppress the growth of pathogens in the intestinal tract, such as strains of Salmonella, Staphylococcus, Escherichia, Proteus, **Candida** and Shigella. Antimicrobial activity against bacterial strains, including **Micrococcus**, Bacillus, and Pseudomonas, have been demonstrated. Additional roles for bifidobacteria, such as lowering the risk of colonic cancer, are discussed. It is concluded that there are advantages for normal, healthy consumers in consuming bifidus products.
SH NUTRITION
CT ACTIVITY; ANTIMICROBIAL ACTIVITY; ANTIMICROBIALS; BACTERIA; BACTERIAL ANTIMICROBIALS; BIFIDOBACTERIA; **DAIRY** PRODUCTS; DESTRUCTION; FERMENTED; FERMENTED **DAIRY** PRODUCTS; FERMENTED FOODS; HEALTH; IMPROVEMENT; INTESTINAL BACTERIA; INTESTINAL MICROORGANISMS; INTESTINES; MICROORGANISMS; PATHOGENIC; PATHOGENIC BACTERIA; PATHOGENIC MICROORGANISMS; REVIEW
DED 12 Feb 1993

L9 ANSWER 25 OF 25 FROSTI COPYRIGHT 2002 LFRA
AN 65464 FROSTI
TI The bacterial content of creamed **milk**.
AU Abo-Elnaga I.G.; Metwally N.H.; El-Mansy E.M.M.
SO Archiv fur Lebensmittelhygiene, 1981, 32 (1), 19-21 (8 ref.)
DT Journal
LA English
SL English; German
CT BACILLUS; BACILLUS SUBTILIS; BACTERIA; COW **MILK**; COWS; CREAM; EGYPTIAN; ESCHERICHIA; ESCHERICHIA COLI; FRESIAN; **MICROCOCCUS**; MICROORGANISMS; **MILK**; NON FAT; OCCURRENCE; QUANTITY; RAW; RAW **MILK**; **SACCHAROMYCES**; SKIMMED **MILK**; STREPTOCOCCUS; YEASTS
DED 10 Nov 1981

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=> s aerobic and anaerobic
L10       1766 AEROBIC AND ANAEROBIC

=> s l9 and l10
L11          0 L9 AND L10

=> d his

     (FILE 'HOME' ENTERED AT 06:53:50 ON 08 FEB 2002)

     FILE 'FSTA, FROSTI' ENTERED AT 06:54:01 ON 08 FEB 2002
L1       110378 S MILK OR MILK PRODUCT#
L2        13077 S CANDIDA OR DEBARYOMYCES OR SACCHAROMYCES OR ZYGOSACCHAROMYCES
L3         2852 S MICROCOCCUS OR ARTHROBACTER OR CORYNEBACTERIUM
L4          654 S L1 AND L2
L5        48454 S L1/TI
L6          212 S L5 AND L2
L7            6 S L5 AND L2 AND L3
L8       141664 S L1 OR DAIRY
L9           25 S L8 AND L2 AND L3
L10        1766 S AEROBIC AND ANAEROBIC
L11           0 S L9 AND L10

=> s l8 and l10 and l2
L12           4 L8 AND L10 AND L2

=> d 1-4 all
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L12 ANSWER 1 OF 4 FSTA COPYRIGHT 2002 IFIS
AN 1985(07):P0017 FSTA
TI [Use of lactic acid by strains of **Debaryomyces** hansenii under conditions of **aerobic** and **anaerobic** growth at different temperatures.]
AU Deiana, P.; Fatichenti, F.; Farris, G. A.
CS Istituto di Microbiol., Agraria e Tecnica, Univ., Sassari, Italy
SO Industria del Latte, (1984), 20 (2) 33-41, 16 ref.
DT Journal
LA Italian
SL English
AB 5 strains of **Debaryomyces** hansenii isolated from cheese were grown in a medium containing yeast extract at 7 g/l and lactic acid at 20 g/l. After 20 days under **aerobic** conditions, the strains had used up 90.5% of the lactic acid on average when grown at 10.degree. C and 81.5% when grown at 25.degree. C. Under **anaerobic** conditions 31.5% was used up in 60 days at the higher temp., although virtually none was used up at the lower temp. This suggested that D. hansenii could be employed to inhibit clostridia in hard cheeses by using up the lactates on which germination of the clostridial spores appears to depend. [See Journal of **Dairy** Research (1983) 50 (4) 449-457.]
CC P (Milk and Dairy Products)
CT LACTIC ACID; TEMPERATURE; YEASTS; **AEROBIC; ANAEROBIC; ANAEROBIC DEBARYOMYCES HANSENII; DEBARYOMYCES; DEBARYOMYCES HANSENII;** HANSENII; TEMP.

L12 ANSWER 2 OF 4 FSTA COPYRIGHT 2002 IFIS
AN 1982(04):P0567 FSTA
TI [Bryndza (Brimsen) cheese made from ewes' **milk**.] Der Brinsekaese aus Schafmilch (Brimsen).
AU Goerner, F.
CS Inst. fuer Tech. Mikrobiol. & Biochem. der Slowakischen Tech. Hochschule, Janska 1, 880 37 Bratislava, Czechoslovakia
SO Ernaehrung, (1980), 4 (4) 157-162, 24 ref.
DT Journal
LA German
SL English
AB This article discusses the history, technology and microbiology of Bryndza cheese, which is made in Slovakia from ewes' **milk** and is also called Liptovska' Bryndza. The initial cheesemaking process takes place on mountain pastures, where the fresh raw **milk** is coagulated with rennet and lumps of curd are lifted with a cheese cloth out of the whey and hung up for 3-4 days to drain off any remaining whey and raise the acidity to 92-97.degree. SH. This initial ripening process is **anaerobic**, the main organisms being Streptococcus lactis, S. faecalis Lactobacillus casei, L. lactis and L. plantarum. The final ripening, which takes place in cheese factories in the valleys, involves both an **anaerobic** process, with lactic acid bacteria, and an **aerobic** process in which a variety of organisms participate (the mould Geotrichum candidum; yeasts of the genera Torulopsis and **Candida**; and non-spore-forming Gram-positive rods). During this final ripening, which lasts 10-14 days, the lumps of cheese (weighing 5-12 kg) are rubbed with salt to raise their DM content. They are then cut up, milled on porphyry rollers, mixed with salt and put into wooden casks or other suitable packaging. The min. DM content is about 50%, with about 50% fat in DM and 1-2% salt. Experiments have shown that the fermentation processes in the cheese inactivate pathogenic bacteria such as Salmonella gallinarum pollorum, S. typhimurium, Shigella sonnei and Staphylococcus aureus. Production of Bryndza cheese is governed by Czechoslovak standards CSN 57 1138 and 57 1140 and is subject to strict control by public health services.
CC P (Milk and Dairy Products)

CT CHEESE VARIETIES; CHEESEMAKING; BRYNDZA; BRYNDZA CHEESE; CHEESES SPECIFIC

L12 ANSWER 3 OF 4 FSTA COPYRIGHT 2002 IFIS
AN 1979(09):G0791 FSTA
TI [Method for the production of a protein concentrate.]
IN Adamek, L.; Forman, L.; Megl, M.; Mostecky, J.; Podhorsky, M.; Rosa, M.; Stros, F.; Teply, M.
SO Czechoslovak Patent, (1978)
PI AO 182171
DT Patent
LA Czech
AB Whey or skim-**milk** is fermented under controlled **anaerobic** conditions at 30-45.degree. C and pH 4.0-6.0, with lactose hydrolysis to glucose and galactose. The protein fraction is then separated. The product obtained is supplemented by the necessary nitrogenous, phosphorous and other nutrients, inoculated with a culture of **Saccharomyces** or **Candida** and left to ferment under **aerobic** conditions. The product is then concentrated and dried.
CC G (Catering, Speciality and Multicomponent Foods)
CT BIOMASS; **MILK**; PATENTS; PROTEIN CONCENTRATES; **PROTEINS MILK**; WHEY; YEASTS; CZECHOSLOVAKIA; PATENT; SINGLE CELL PROTEINS; **SKIM MILK**; **SKIM-MILK**; **YEASTS-SKIM-MILK**; **YEASTS-SKIM-MILK PROTEIN CONCENTRATES**; YEASTS-WHEY; YEASTS-WHEY PROTEIN CONCENTRATES

L12 ANSWER 4 OF 4 FROSTI COPYRIGHT 2002 LFRA
AN 177602 FROSTI
TI Biomass from carbohydrates.
AU Oura E.
SO Biotechnology, vol 3, edited by H.J.Rehm. Weinheim: Verlag Chemie, 3-41 (98 ref. En)., 1983
DT Book Article
CT ACTIVE YEAST; **AEROBIC**; AMINO ACIDS; **ANAEROBIC**; APPLICATIONS; BAKERS YEAST; BIOCHEMICAL PROPERTIES; BIOMASS; BIOTECHNOLOGY; **CANDIDA**; CARBOHYDRATES; COMPOSITION; **DAIRY** WASTES; DRY; FACTORS AFFECTING; FERMENTATION; GLUCOSE; GROWTH; INTERACTIONS; LIPIDS; LIQUORS; MECHANISMS; METABOLISM; MICROORGANISMS; MINERALS; MOLASSES; NUCLEIC ACIDS; PAPER INDUSTRY; PHYSIOLOGICAL PROPERTIES; PRODUCTION; PROPERTIES; PROTEINS; **SACCHAROMYCES**; **SACCHAROMYCES** CEREVISIAE; STARCH; SUGAR INDUSTRY WASTES; SULFITES; TRIGLYCERIDES; WASTES; WHEY; WINE; YEASTS
DED 26 Apr 1988

=> s l8 and l10 and l3
L13 10 L8 AND L10 AND L3

=> d 1-10 all

L13 ANSWER 1 OF 10 FSTA COPYRIGHT 2002 IFIS
AN 1996(09):A0041 FSTA
TI Production and property of a bacteriocin-like inhibitor from Lactococcus lactis DY11212.
AU Fang, T. J.; Yuann-Shiuann Yang
CS Graduate Inst. of Food Sci., Nat. Chung Hsing Univ., Taichung, Taiwan
SO Food Science, Taiwan, (1995), 22 (5) 479-493, 33 ref.
ISSN: 0253-8997
DT Journal
LA English
SL Chinese
AB Characteristics of a bacteriocin-like inhibitor secreted by Lactococcus lactis were studied. The inhibitor produced by L. lactis DY11212 (isolated

from acidophilus **milk** powder) was effective against various Gram-positive bacteria, including Bacillus, Enterococcus, Lactobacillus, Leuconostoc, Listeria, **Micrococcus** and Pediococcus. Gram-negative bacteria, including Citrobacter, Enterobacter, Erwinia, Escherichia, Pseudomonas and Salmonella, were weakly inhibited by this inhibitory substance. The bacteriocin-like inhibitor was heat resistant (100.degree.C, 30 min, pH 2-5), but was inactivated by .alpha.-amylase, .alpha.-chymotrypsin, ficin, lipolase, pepsin and pronase E (L. monocytogenes Scott A used as an indicator). The inhibitor was produced by L. lactis DY11212 at incubation temp. ranging from 15-30.degree.C. Max. antimicrobial activity was detected in TGE (trypticase glucose extract) medium after the culture had entered the early stationary phase of growth. Of various C-sources studied, glucose, maltose and trehalose supported highest bacteriocin production. Growth in TGE medium with an initial pH of 7 and incubated at temp. between 20 and 25.degree.C were optimal conditions for bacteriocin-like inhibitor production. Results of **aerobic** and **anaerobic** incubations showed that cultures in shaker flasks had the lowest antimicrobial activity. [From En summ.]
CC A (Food Sciences)
CT ANTIBIOTICS; BACTERIA; BACTERIOCINS; LACTOCOCCUS

L13 ANSWER 2 OF 10 FSTA COPYRIGHT 2002 IFIS
AN 1991(04):P0104 FSTA
TI [Grated cheese retailed in some European markets.]
AU Maggi, E.; Censi, A.; Bertani, P.
SO Industrie Alimentari, (1989), 28 (276) 1079-1083, 3 ref.
ISSN: 0019-901X
DT Journal
LA Italian
AB General characteristics of grated cheese, usually sold under the commercial name Parmesan are described. A survey carried out on 26 samples of grated cheeses sold in different European countries is reported. Organoleptic and certain physicochemical and microbiological characteristics of the cheese samples were examined. Tables are provided of organoleptic properties, pH, moisture, lipid, protein and NaCl contents, and numbers of **aerobic** mesophiles, **anaerobic** mesophiles, coliforms, salmonellae, **Micrococcus**, thermonuclease-positive and coagulase-positive staphylococci, faecal streptococci, lactobacilli, yeasts and moulds. Great variability in chemical and microbiological characteristics of the samples was noted. Pathogenic or potentially pathogenic bacteria (Salmonella, coagulase- and thermonuclease-positive staphylococci) were absent, but sulphite-reducing clostridia were present in 50% of the samples (5 x 10.sup.1 to 5 x 10.sup.3 cfu/g).
CC P (Milk and Dairy Products)
CT CHEESE VARIETIES; **DAIRY PRODUCTS**; CHEESES SPECIFIC; PARMESAN CHEESE

L13 ANSWER 3 OF 10 FSTA COPYRIGHT 2002 IFIS
AN 1986(05):P0068 FSTA
TI [Spoilage microorganisms encountered in ultra-high-temperature processed **milk**.]
AU Lee, C. M.
CS Dep. of Environmental Eng., Nat. Chung Hsing Univ., Taichung, Taiwan
SO Chinese Journal of Microbiology and Immunology, (1984), 17 (2) 86-91, 22 ref.
DT Journal
LA Chinese
SL English
AB Of 40 strains of **aerobic** or facultative **anaerobic** microorganisms isolated from 37 samples of spoiled UHT **milk**, 13 were identified as Bacillus spp. There were 6 B. cereus, 5 B.

licheniformis, 1 B. brevis and 1 B. pumilus. The other 27 strains were identified as 5 yeasts, 2 Pseudomonas spp., 3 Streptococcus spp., 12 Lactobacillus spp., 1 Shigella sp., 1 Aeromonas sp. and 3 **Micrococcus** spp. Results indicate that the spoilage of **milk** was caused mainly by contamination during filling. Bacillus strains isolated were mesophilic or thermophilic, and some were also psychrotrophic.
CC P (Milk and Dairy Products)
CT MICROORGANISMS; **MILK**; SPOILAGE; MICROBIAL SPOILAGE; **STERILIZED MILK**; STERILIZED MILKS; STRAINS # UHT

L13 ANSWER 4 OF 10 FSTA COPYRIGHT 2002 IFIS
AN 1973(10):P1515 FSTA
TI Bacteriology of dahi: i. Qualitative and quantitative studies of microflora of dahi.
AU Sheikh, N. M.; Joarder, G. K.; Haroon, S. N.; Khatoon, M.
CS PCSIR Lab., Dacca-2, Bangladesh
SO Scientific Researches, East Regional Laboratories Pakistan Council for Scientific and Industrial Research, (1970), 7 (1) 1-8, 27 ref.
DT Journal
LA English
AB Samples of dahi, 18-24 h old, were collected from the bottom of 6 dahi pots at 6 shops in Dacca and analysed within 3-4 h. Direct microscopic count ranged from 138 x 10.sup.7 to 319 x 10.sup.7 microorganisms/ml, and cocci predominated over rods in all but 1 of the samples. Total viable count on **milk** agar at 30.degree.C ranged from 22 x 10.sup.6 to 365 x 10.sup.6/ml; on Rogosa agar, lactobacillus count ranged from 1.7 x 10.sup.4 to 3 x 10.sup.6/ml at 30.degree.C when incubated under **aerobic** conditions, and from 2.2 x 10.sup.4 to 8.84 x 10.sup.6/ml under **anaerobic** conditions. Average composition of the microflora was 78.9% Streptococcus spp., 17.5% Lactobacillus spp., 1.8% **Micrococcus** spp. + unidentified cocci, 1.1% yeasts and 0.7% Bacillus spp. Only the streptococci and lactobacilli formed a curd, with or without whey separation, when incubated for 24 h at 37.degree.C in 10% skim-**milk** broth.
CC P (Milk and Dairy Products)
CT BACTERIOLOGY; **FERMENTED MILK**; CULTURED MILKS; DAHI

L13 ANSWER 5 OF 10 FSTA COPYRIGHT 2002 IFIS
AN 1973(08):P1072 FSTA
TI [Microbiological study of evaporated **milk** during storage.]
AU Sedunova, G. G.; Blok, G. G.; Chekulaeva, L. V.
SO Trudy, Vologodskii Molochnyi Institut, (1972), No. 64, 61-68, 12 ref.
DT Journal
LA Russian
AB Samples of evaporated **milk**, obtained from 3 **dairy** factories in the USSR, were examined after 3 months' storage for the presence of microorganisms using 5 different media. No yeast, moulds or coliforms were detected, the flora consisting mainly of **aerobic** and **anaerobic** sporeforming bacteria (15 of 20 strains isolated). 6 isolates, identified as belonging to the genera Bacillus, **Micrococcus**, Streptococcus and Mycobacterium, all produced catalase and were Gram-positive; 4 had adverse effects on the **milk**, 2 imparting sweetish taste and 1 bitter taste, whilst 1 increased the viscosity.
CC P (Milk and Dairy Products)
CT MICROBIOLOGY; **MILK**; **EVAPORATED MILK**; **MILK (BACTERIOLOGY)**; STORED

L13 ANSWER 6 OF 10 FSTA COPYRIGHT 2002 IFIS
AN 1972(09):P1390 FSTA
TI [Thermoduric microflora of cows' **milk**.]

AU Tsonev, S.
SO Veterinarnomeditsinski Nauki, (1972), 9 (2) 101-106, 12 ref.
DT Journal
LA Bulgarian
SL Russian; English
AB In a continuation of work described in the preceding abstr., counts of total bacteria, lactic acid bacteria, thermoduric bacteria, and **aerobic** and **anaerobic** sporeformers (after heating to 85.degree.C for 10 min) were determined in 122 samples of **milk**. Lactic streptococci accounted for 42-93% of the total flora of the **milk**, and for 83-99% of the thermoduric flora, in which Streptococcus thermophilus predominated; micrococci and **aerobic** and **anaerobic** sporeformers were also present. Coliforms were not detected in pasteurized **milk**.
CC P (Milk and Dairy Products)
CT BACTERIA; LACTIC ACID; **MILK**; STREPTOCOCCUS; LACTIC ACID BACTERIA; LACTIC STREPTOCOCCI; LACTOBACILLACEAE; MICROCOCCI; **MICROCOCCUS**; **MILK (BACTERIOLOGY)**; STREPTOCOCCI; THERMODURIC; BACTERIA

L13 ANSWER 7 OF 10 FSTA COPYRIGHT 2002 IFIS
AN 1969(04):B0146 FSTA
TI Taxonomy of some staphylococci and micrococci isolated from bovine teat canals and foremilks.
AU Forbes, D.
CS Central Vet. Lab., New Haw, Weybridge, Surrey, England
SO Journal of Applied Bacteriology, (1968), 31 (4) 426-35, 21 ref.
DT Journal
LA English
AB Taxonomy of 2404 cultures of Gram-positive, catalase-positive, non-mobile cocci, isolated from teat canal swabs and foremilk samples during 2 lactations, was studied using Baird-Parker's classification [J. gen. Microbiol. (1963) 30 (3) 409-27]. All cultures were examined using 8 reactions: coagulase, acid production from glucose in **anaerobic** conditions and from arabinose, lactose, maltose and mannitol in **aerobic** conditions, Voges-Proskauer reaction and phosphatase; most cultures were assigned to typical subgroups on the basis of these reactions. 300 of the cultures were further examined using 25 reactions. Tabulated results show that most of the cultures classified by 25 reactions fell into groups proposed by Baird-Parker.
CC B (Biotechnology)
CT BACTERIA; CATTLE; **MILK**; SCIENCE; STAPHYLOCOCCUS; BOVINE; MICROCOCCI; **MICROCOCCUS**; STAPHYLOCOCCI; TAXONOMY; TEAT CANALS FOREMILK

L13 ANSWER 8 OF 10 FROSTI COPYRIGHT 2002 LFRA
AN 563170 FROSTI
TI Spoilage of processed foods: causes and diagnosis.
AU Australian Institute of Food Science and Technology Incorporated Food Microbiology Group; Moir C.J.
SO Published by: AIFST Inc., Waterloo DC, 2001, 428pp
ISBN: 0-9578907-0-2
NTE REFERENCE ONLY
DT Book
LA English
AB This practical manual on the causes and diagnosis of processed food spoilage is split into five sections, the first being a general introduction to microbial and non-microbial food spoilage. Section 2, Processing technologies, covers: canned food technology; preservation of foods by chilling, changing water activity, fermentation, chemical preservatives, and non-thermal processing; the role of packaging in food preservation; and technology of water chlorination for canning. Section

3, Spoilage of various food classes, covers: alcoholic beverages; soft drinks, cordials, juices and bottled water; commercially sterile foods; dried and concentrated foods; acid liquid foods; bakery and cereal products; **dairy** products; eggs and egg products; marine and freshwater foods; fruit juices; meat and meat products; edible oils and spreads; vegetables and vegetable products; and sandwiches, edible films, etc. Section 4, Investigating spoilage of processed foods, covers: non-microbial spoilage; product-container reactions and container testing; and procedures for diagnosing spoilage. Section 5, Physiology, ecology and taxonomy of spoilage organisms, covers: **anaerobic** and gram-positive **aerobic** spore-forming rods; gram-negative **aerobic** bacteria and facultative rods; gram-positive cocci - **Micrococcus** and Staphylococcus; lactic acid bacteria; Brocothrix thermosphacta; Shewanella; moulds; and yeasts.

CT BACTERIA; CANNED FOODS; CHLORINATION; DETERIORATION; IDENTIFICATION; MICROORGANISMS; MOULDS; PACKAGED FOODS; PACKAGING; PRESERVATION; PRESERVED FOODS; PROCESSED FOODS; SPOILAGE; SPOILAGE BACTERIA; SPOILAGE MICROORGANISMS; YEASTS

DED 18 Sep 2001

L13 ANSWER 9 OF 10 FROSTI COPYRIGHT 2002 LFRA

AN 473378 FROSTI

TI Bacteria surviving boiling the raw **milk** and involved in later spoilage of the product.

AU Abo-Elnaga I.G.

SO Microbiologie Aliments Nutrition, 1998, (January-March), 16 (1), 43-52 (25 ref.)

DT Journal

LA English

SL English

AB Raw **milk** frequently contains a variety of spoilage and pathogenic microorganisms, and, in some countries, boiling the **milk** is the only means of extending its shelf-life. The survival of **aerobic** and facultatively **anaerobic** bacteria in boiled **milk** was investigated, and bacteria involved in the spoilage of the stored boiled **milk** were identified. Bacteria present in boiled **milk** included Bacillus, Streptococcus, Lactococcus, Enterococcus, Enterobacter, and **Micrococcus** spp, and Clostridium perfringens. Spoilage of some samples of stored boiled **milk** involved L. lactis, Enterobacter cloacae, Enterobacter aerogenes, and Enterococcus faecalis.

SH CONTAMINATION

CT BOILED **MILK**; OCCURRENCE; PATHOGENIC BACTERIA; RAW **MILK** ; SPOILAGE BACTERIA; SURVIVAL

DED 14 Aug 1998

L13 ANSWER 10 OF 10 FROSTI COPYRIGHT 2002 LFRA

AN 202701 FROSTI

TI Microbiological methods.

AU Collins C.H.; Lyne P.M.; Grange J.M.

SO London: Butterworths, 6th ed., 409pp., 1989
ISBN: 0-407-00885-3

DT Book

CT ACETOBACTER; ACINETOBACTER; ACTINOMYCES; **AEROBIC** BACTERIA; **AEROBIC** MICROORGANISMS; AEROMONAS; ALCALIGENES; **ANAEROBIC** BACTERIA; **ANAEROBIC** MICROORGANISMS; ANALYTICAL EQUIPMENT; ANALYTICAL KITS; ANTIBIOTIC RESISTANCE; ANTIBIOTICS; ANTIBODIES; BACILLUS; BACTERIA; BASIC GUIDE; BIOASSAYS; BIOCHEMICAL PROPERTIES; BRUCELLA; CABINETS; CAMPYLOBACTER; CANNED FOODS; CEREALS; CHIGELLA; CHROMOBACTERIUM; CITROBACTER; CLOSTRIDIUM; CONFECTIONERY; CONTAMINATION; **CORYNEBACTERIUM**; COUNTING; **DAIRY** PRODUCTS; DESTRUCTION; DETERMINATION; DISINFECTANTS; EGGS; ENTEROBACTER; EQUIPMENT; ESCHERICHIA;

EVALUATION; FILTRATION; FISH; FLAVOBACTERIUM; FOOD POISONING; FUNGI; GROWTH; HANDLING; HUMANS; IDENTIFICATION; IDENTIFYING; IMMUNOLOGY; KLEBSIELLA; LABORATORIES; LABORATORY EQUIPMENT; LACTOBACILLUS; LEGIONELLA; MEAT; MEAT CONTAMINATING; MEAT PRODUCTS; MEDIA; MICROBIOLOGICAL MEDIA; **MICROCOCCUS**; MICROORGANISMS; MICROSCOPES; **MILK**; MYCOBACTERIUM; PATHOGENIC; PATHOGENIC BACTERIA; PATHOGENIC MICROORGANISMS; PATHOGENICITY; PLESIOMONAS; POISONING; POULTRY MEAT; PROPERTIES; PROTEUS; PSEUDOMONAS; RESISTANCE; SAFETY; SALMONELLA; SHIGELLA; SOFT DRINKS; STAINING; STAPHYLOCOCCUS; STERILIZATION; STREPTOCOCCUS; SYMPTOMS; TOXICITY; TYPE; TYPES; VIBRIO; WATER

DED 19 Jul 1989